

1. DATE - TIME GROUP 6 Nov 64 07/0600Z	2. LOCATION Oklahoma City, Oklahoma
3. SOURCE civilian	10. CONCLUSION 1. Astro (Meteor) 2. Other (Rock)
4. NUMBER OF OBJECTS multiple	Visual observation of meteor. Physical Specimen Analysis determined to be Rock.
5. LENGTH OF OBSERVATION brief	11. BRIEF SUMMARY AND ANALYSIS Boy observed meteor. Attempted to recover obj in nearby river bed. Obtained 23 pound sample and portion forwarded for analysis. Spectrographic and chemical analysis indicated that object did not have space residue. SAMPLE CONSUMED IN ANALYSIS.
6. TYPE OF OBSERVATION ground visual	
7. COURSE falling	
8. PHOTOS <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
9. PHYSICAL EVIDENCE <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

FORM
FTD SEP 63 0-329 (TDE) Previous editions of this form may be used.

FTD (TDEW)
Wright-Patterson AFB, Ohio 45433
18 January 1965

Hayden C Hewes
Associate Director
IIOUFO
3005 West Eubanks
Oklahoma City, Oklahoma

Dear Hayden,

This is in reply to your letter of 26 December 1964. We received the Ray Stanford motion picture. It was forwarded to Chicago, Illinois for duplication by Kodak and returned to us. The original film was sent to you, airmail, registered, special delivery on the 11th of January under Register Number 664380. We do hope that it arrived in time for your lecture on the 12th. The images on the Ray Stanford film depicts clouds, a contrail and the planet Venus. In an independent evaluation of the movie the object was determined to be the planet Venus. Doctor J Allen Hynek has also evaluated the movie and he has determined the image to be the planet Venus. We appreciate your forwarding this film for our evaluation.

Regarding the fragments which you sent us on 9 November 1964. This fragment was forwarded and remained in the Post Office for approximately six weeks. There was an amount of postage due and we did not receive this object in our shop until the 23rd of December. We submitted the fragment to ASD for analysis and the Bowser-Morner Testing Laboratories, Incorporation conducted the spectrographic Semi-Quantative Analysis. The object was given preliminary tests and determined to have no space residue. The rock appears to be common to that portion of Oklahoma. A copy of the lab report is attached. Perhaps these events will clarify the statements in our letter of 11 December 1964 to you. No contact has been made with Doctor King or Doctor Hynek on this particular object. I would like to point out that meteor observations of this nature would be reported by many more observers and that should the object be a meteorite, the absence of sound would indicate that the impact point would be in excess of 300 miles from the point of observation.

The Fact Sheet is in the process of being printed. A courtesy copy will be forwarded to you upon completion. We are enclosing the statistics which will be included as attachments to the basic information.

We are attaching a list of the UFO organizations and hobby clubs. We would appreciate any additions of which you are aware and/or comments regarding discontinuations of those no longer active.

Please feel free to publish any information regarding evaluations such as the Pocus City sighting. Information regarding evaluations by the Air Force is always available to individuals and the press. It is good public relations practice for evaluations to appear in the newspaper. This does much to clarify reports and to eliminate doubt in the minds of some readers. The information supplied to you by our office regarding personal opinions and policy and data of this nature is for your information only, since all information regarding policy must be released through the Air Force rather than in the form of a personal letter.

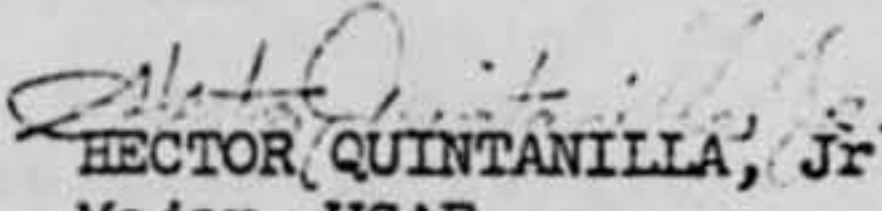
Your six page article is being returned with a few comments by Sgt Moody. These comments are for your information and/or guidance in future articles. The following comments or points of information appear pertinent.

(1) The Air Force accepts only scientific fact regarding life and intelligence on other planets and does not engage in speculation.

(2) Information from almost 9,000 cases indicates that unidentified flying objects exist as reports of aircraft, balloons, stars, planets, missiles and a multitude of known conventional objects and phenomena. There has been no indication that these objects are from outer space under intelligent control. The letter of 23 Sep 47 did not state that UFOs are real, it requested an investigation to determine IF they were real and all official conclusions and all information to date indicates that given sufficient information a valid explanation for the cause of each report could be made.

(3) We would appreciate a statement of the information in your files which indicates that they are objects of interplanetary origin.

Sincerely,


HECTOR QUINTANILLA, Jr.
Major, USAF
Chief, Project Blue Book

- 5 Atchs
1. Analysis of Fragments
2. Statistics
3. Bibliography
4. List of Organizations
5. Six page article & comments

RESEARCH
INVESTIGATION
ANALYSIS

INTERPLANETARY INTELLIGENCE
OF
UNIDENTIFIED
FLYING OBJECTS
OKLAHOMA CITY, OKLA.

W. F. RIEFER
Director
H. C. HEWES
Associate Director
J. MANEY
Deputy Director

December 26, 1964

Major Hector Quintanilla, Jr.
FTD (TDEW)
Box 9494
Wright-Patterson AFB, Ohio

Dear Major Quintanilla:

Thank you for your two most recent letters in answer to my request. I hope your Christmas was a happy one.

I still have not heard from [REDACTED]. Will let you know as soon as I do. Enclosed is the copy that was made from the 16 mm movie that Ray sent me. Please return as soon as possible because I will need it on January 12. Imam giving a lecture to about 75 sorority members (and husbands) (Free, all I will get is may be some members) I thought you might like to see the film for yourself.

On November 9, I sent you several fragments believed to be a meteorite that I received from the Kirkpatrick Planetarium along with what information I had. Did you send the fragment to Dr. King at NASA, or to Dr. Hynek? Dr. King has the original 23 pound part and I forwarded several fragments to Dr. Hynek. In your letter of 11 December you suggested that you can analyze any specimens I may forward. I do not understand one of your sentences. "I also suggested that samples of these fragments, as there is a possibility that they are meteorites or tektites indicated by Dr. King be sent to Dr. Hynek". Have you corresponded with Dr. King on this? Dr. King in a letter to the Planetarium stated that he believed the fragments to be meteorites or tektites. Meteorites has almost been eliminated and the main belief is tektites, but in a letter from Dr. King dated December 18 he stated the fragments appears to be of ordinary scoriaceous basalt rock, and not to release any information on it.

I am looking forward to the new Fact Sheet.

Would it be possible to obtain a copy of the letter dated September 23, 1947 and the list of 99 active organizations?

I appreciate the information which you have sent and you can be sure that it will not be published.

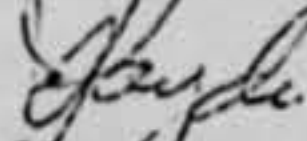
I did feel that a follow up story was due on the September 11, Ponca City sighting and the following article appeared on December 9. I told you while I was at Wright-Patterson, that we would publish information of sightings as it turned out to be and not drop the explained sightings as NICAP does. I hope you do not mind. All future information will not be released unless stated for release.

Be sure to read the new issue of True. NICAP article "U.S. Air Force Censorship of UFO sightings". Enclosed is a copy of the article I sent to True, errors and all. I do not believe they will publish it, but I had to state the other side as I saw it. Writing articles is new for me. Maybe in time they will get better.

~~_____~~ en believes the UFO sightings at St. Petersburg is a ~~_____~~ satellite. (Stated in a letter to Joan) I wrote ~~_____~~ about why she thought this, but have not received a reply.

Must close for now.

Very truly yours,



Hayden C. Hewes
Associate Director
IIIOFO
3005 W. Eubanks

RESEARCH
INVESTIGATION
ANALYSIS

INTERPLANETARY INTELLIGENCE
OF
UNIDENTIFIED
FLYING OBJECTS
OKLAHOMA CITY, OKLA.

W. F. RIEFER
Director
H. C. HEWES
Associate Director
J. MANEY
Deputy Director

November 9, 1964

Major Hector Quintanilla, Jr.
Hq FTD (AFSC)
Box 9494
Wright-Patterson AFB, Ohio 45433

Dear Major Quintanilla:

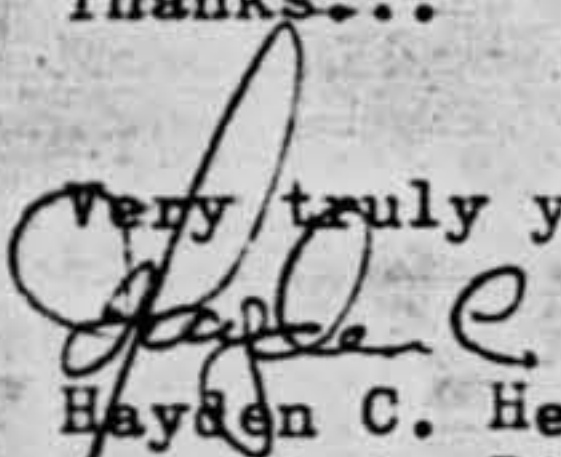
The enclosed newspaper article will give you information on the enclosed unknown particles. These were given to me by Mr. Dale Johnson of the Kirkpatrick Planetarium (Oklahoma Science & Arts Foundation, Inc. P.O.Box 5232, Oklahoma City.)

I have talked with Dale and have a tape interview with the two boys. We have photographs of the main part of the Meteorite and of the landing area.

Let me know as soon as possible what the elements are identified as. The Planetarium was also interested in a copy of the analysis.

Thanks...

Very truly yours,


Hayden C. Hewes,
Associate Director

3005 W. Eubanks

Meteorite Gave City Boy Once In A Lifetime Show

By FRANK LEE

Preliminary analysis of 23 pounds of matter, which purportedly hurtled from space to earth late Friday night, indicates there is a very strong possibility 16-year-old Rick Barnes, 3020 SW 53, witnessed an occurrence seldom seen in most life-

times.

About midnight Friday Rick was in front of his home near his car when he looked to the sky and saw a shooting star flash downward.

Next he saw a shower of sparks. He thought this happened when the object hit the ground and, according to Dale Johnson of the Kirkpatrick Planetarium, this might possibly have been the case.

Rick thought it hit the ground not too far from his home.

Early Saturday morning Rick and a friend, Bruce Baskerville of 5312 S. Monte Place, began searching a vacant field in the area he thought his "meteorite" had hit.

Near the 3500 block of SW 53 Rick and Bruce found what they thought to be the "meteorite" half submerged among some debris in a shallow creek. Dale Johnson came out from the planetarium to examine the find.

Having studied the 23 pounds of matter over the past weekend Johnson said it appears very possible Rick Barnes and Bruce Baskerville actually did find the remains of a meteorite.

Johnson said the planetarium is not equipped to make a complete analysis but what

tests he has been able to make indicate the matter discovered by Rick and Bruce had existed at extremely high temperatures.

The area where the hardened, lava-like mass was found had been burned and charred by intense heat.

Johnson explained that meteorites fall into three general classifications. One has a very high nickel-iron content.

Others are composed of siliceous (or stony) material and metal. Another kind consist mostly of siliceous with only traces of metal. Johnson believes this stony variety is what Rick and Bruce found.

Johnson said Rick has donated all but a small piece of his "meteorite" to Kirkpatrick Planetarium. The small piece he's keeping for a memento and to show in his school science class.

Oklahoma Science & Arts Foundation, Inc.
N. W. 10th & May Ave.
P. O. Box 5232
Oklahoma City 7, Oklahoma

Fragments for identification
November 7th discovery

0742 P/S.

BOWSER-MORNER *Testing Laboratories, Inc.*

CHEMISTS • INSPECTORS • ENGINEERS
Founded 1911

420 DAVIS AVENUE
MAIL ADDRESS P.O. BOX 51
DAYTON 1, OHIO
PHONE: 253-8805

LABORATORY REPORT

January 7, 1965

Report to: University of Cincinnati - Cincinnati, Ohio

Report on: Spectrographic Semi-Quantative Analysis

Laboratory No.: 616507 Your Mark: P.O. No. 31984

Sample Identification:

4-1993

Calcium	6.00
Copper	.02
Magnesium	2.5
Silicon	29.0
Iron	9.0
Nickel	.02
Sodium	1.0
Aluminum	4.0
Manganese	.15
Titanium	1.50
Zirconium	.05
Molybdenum	.01
Vanddium	Trace
Barium	.03
Strontium	.03
Chromium	.10

Respectfully submitted,

BOWSER-MORNER Testing Laboratories, Inc.

Samuel Lucas, Jr.
Spectrographer

Client - 3
File - 1
SL/bb



As a Mutual Protection to Clients, the Public and Ourselves, All Reports Are Submitted as the Confidential Property of Clients, and Authorization for Publication of Statements. Conclusions or Remarks from or Based on Our Reports.

SUB ORDER (Ref ASDR 80-4)

1. TO (Supporting Element) MAYA	2. DATE 28 Dec 64	3. FOR SERVICE IN SUPPORT OF: SYSTEM NO.	4. FILE OR LEDGER NO. INITIATING ELEMENT
5. DATE COMPLETION REQ.	6. PRIORITY	PROJECT NO.	SUPPORTING ELEMENT 4-1997
7. SECURITY CLASSIFICATION OF WORK REQUESTED UNCLAS	8. PRECEDENCE RATING	TASK NO. 68001	
9. A/C TYPE, MODEL AND SERIAL NO.		PROGRAM STRUCTURE	OTHER
		TITLE	

10. DESCRIPTION OF WORK

✓ DETERMINE COMPOSITION OF SAMPLE.

1. Spectrographic

2. X-ray diffraction

CONTINUED ON REVERSE SIDE ☐

FOR USE OF RESPONSIBLE ELEMENT

11. INITIATED BY ✓ SGT MOODY 66378 FTD (TDEW) 69216 ORGN SYMBOL EXT	12. APPROVED BY ORGN SYMBOL EXT	13. CHIEF (Responsible Element)
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FOR USE OF SUPPORTING ELEMENT

14. ESTIMATED COMPLETION DATE MAN-HOURS	15. PROJECT ENGINEER OR PLANNER C. D. H. B + M ORGN SYMBOL EXT	16. CHIEF (Supporting Element)
-----------------------------------------------	---------------------------------------------------------------------------------------	--------------------------------

CDH CLOSING ACTION

17. REASON: <input checked="" type="checkbox"/> COMPLETED <input type="checkbox"/> CANCELLED	20. CHIEF (Supporting Element) Walter S. Mennery Capt. USAF	21. CHIEF (Responsible Element)
18. DATE COMPL 1-12-65	19. M/HR5 EXP 1	



Meteorite Recovered

Bruce Baskerville, left, 5312 S. Monte Pl., and Rick Barnes, center, 3020 SW 53rd Pl., listen as Dale Johnson, staff member at Kirkpatrick planetarium, points out a piece of what is believed to be meteorite the boys found in southwest Oklahoma City Saturday. Young Barnes saw the meteorite fall about midnight Friday. The piece of material weighs 23 pounds.

23-Pound Meteorite Found In City Field

Two teen-age boys Saturday found what is believed to be a 23-pound meteorite

Baskerville, 5312 S. Monte Pl., found the meteorite Saturday morning in an open

He said he went out to his car about this time and saw a "shooting star" flash down-

which apparently fell to the earth in Southwest Oklahoma City Friday night.

The boys, Rick Barnes, 3020 SW 53, and Bruce

field in the 3500 block near SW 53.

Barnes said he saw the object fall about midnight Friday.



This Is The Spot

Dale Johnson lifts piece of "meteorite" from charred debris in creek bed in Southwest Oklahoma City. Two boys found the piece of material in the field after one of them saw a "shooting star" about midnight Friday.

ward across the sky. He said he saw a shower of sparks as the meteorite struck the earth.

The next morning, he said, he and Baskerville searched the vacant field where Barnes said the meteorite appeared to have fallen.

They said they found the material half submerged in water on some debris in a creek which cuts across the field.

The "falling star" was not picked up on radar at Tinker AFB but several persons reported seeing the flash of light around midnight.

Dale Johnson, Kirkpatrick Planetarium staff member, was called to examine the find and the spot the boys indicated they had found the material.

Johnson said water in the creek in which the meteorite landed apparently had been much higher when the rock struck, due to heavy rains Friday.

He said he found the debris on which the meteorite came to rest burned and charred from the intense heat, even though completely under water.

Thompson, an amateur astronomer and science major, said other pieces of rock were found in the field Sunday. Two pieces, one smaller and apparently the leading edge of the "meteorite," were found together. The bigger chunk weighed 21 pounds and the smaller two pounds.

He said this could be one variety of meteorite called a "stoney" and they plan to take a cross section of the material for verification.

He said a crater might be found in the field where an even larger chunk could have fallen.

"We plan to try to get some experts in here to determine if it is a meteorite," Thompson said.



Kirkpatrick Planetarium's Dale Johnson examines suspected meteorite that fell in southwestern Oklahoma City.

Planetarium Probing

Fiery Cinders Unique Find?

By Jack Taylor

A 23-pound cinder that fell in southwest Oklahoma City Friday night has been almost positively identified as part of a meteorite that crashed to earth during a heavy, 3-day meteor shower, an official of the Kirkpatrick Planetarium said Thursday.

"From all indications that's what it is," said Dale Johnson, geologist, amateur astronomer and assistant director of the planetarium.

He's Sold

Privately, Johnson says he is convinced it is a meteorite that fell from the direction of Tauris, although from not that distance.

Officially, Johnson said he is waiting for final confirmation from experts in the meteorite field.

"There are only about four observed falls and finds yearly in the entire world," he said. "So if this is the real McCoy, it is a rare find."

Ground Scorched

The cinder was spotted by Rick Barnes, 3020 SW 53, as it shot downward, leaving a trail of light late Friday night. Barnes also saw it crash into a soggy creek bottom which was left scorched by the cinder.

Other witnesses reported seeing it fall to earth.

Barnes and another youth, Bruce Baskerville, 5312 S Monte Pl., recovered the object and other portions—one about 10 pounds—and turned most

(See FIERY—Page 2)

(Continued From Page 1)

of the pieces over to the planetarium.

Group Interested

The suspected meteorite has generated interest with an Oklahoma City organization known as the Interplanetary Intelligence of Unidentified Flying Objects (IIOUFO).

Hayden C. Hewes, associate director of the IIOUFO, has sent a fragment of the cinder to Wright-Patterson Air Force Base in hopes of obtaining a military evaluation.

Hewes also is planning to conduct a search Saturday of a 300 acre area surrounding the spot where the cinder was found. He is hopeful of finding more particles of the suspected meteorite, and possibly a larger portion than the original find. Johnson says this is possible.

Report on Way

Johnson sent a detailed report Wednesday to Dr. H. H. Nininger, Sedona, Ariz., meteorite expert, in an attempt to gain his interest and opinion.

He also plans to write to a New Mexico University expert on so-called "green fire-balls," a particular type of meteoritic phenomenon. And he plans to obtain a chemical analysis, probably by cutting a cross-section.

The Oklahoma City find tentatively has been

Sunday, and Johnson received a report a woman found another portion Wednesday.

Four—The 23-pound chunk was "completely clean, not a bit of dust or dirt on it."

Five—"It is highly unlikely an airplane would blow out a piece of carbon that size."

treme heat, and it charred the earth where it hit.

Two—It fell during the most intensive bombardment of the November 5 to 8 meteor shower.

Three—Several other pieces which apparently broke off during the last moments of flight were found when streets in the area were carefully swept

placed in the aerolite category (meteorites made up almost entirely of stone), one of three broad classifications, Johnson said.

The evidence pointing to the probability the cinder is part of an actual meteor, Johnson said, includes:

One—It is a fire-made object, fused under ex-

Oklahoma City's Rare Visitor From Space

Little did Rick Barnes realize that before the night of November 6th, 1964 was over he would witness an occurrence seldom seen in most lifetimes. About midnight Mr. Barnes went out to his car and observed a "shooting star" about the size of a basketball go overhead. It made no sound, was a blue-green in color and disappeared behind a row of houses. Next he saw a shower of sparks and heard an explosion. The first question that entered his mind was, "What had landed?"

Early the next morning with the help of a good friend, Mr. Bruce Baskerville, they searched the 300 acre area there they thought the object landed. While crossing a creek, which cuts across the field they noticed an odd looking object half submerged in the creek.

A telephone call was placed to the Kirkpatrick Planetarium and Mr. Dale Johnson, went out to investi-

gate. The main object weighed approximately 21 pounds. A search of the area the following day uncovered a small burned area 24"x36" in which over 200 small fragments were found. Approximately 800 yards away hundreds of fragments were found in the street which apparently broke off during the last moments of flight.

Preliminary analysis of the 21 pound object indicated there was a strong possibility it was a meteorite. The main fragment was sent to the National Aeronautics and Space Administration Lab at Houston, Texas. The result of a very preliminary examination by X-ray diffraction and optical methods showed the specimen not to be a meteorite. The specimen appeared to be a fragment of ordinary "Scoriaceous basalt" similar to rocks found in the surface lava flows in New Mexico. Also preliminary examination by the Smithsonian Institution, United States National Museum in Washington classified it as an artificial product rather than a meteorite. A spectrographic semi-quantitative analysis by the U.S. Air Force identified the 16 elements in the objects.

The Smithsonian Institution suggested that the wrong object had been recovered. So the case reopened and a fragment that was recovered from the small burned area was sent to HOUFO scientific panel member N. N. Kohanowski, associate professor of mining and geology, at the University of North Dakota.

"I have advanced the study of the specimen sent in by you as far as the material lasted. I simply ran out of the white matter filling the cavities of the rock before completing the chemical analysis. There was, however, enough of the "hard rock" phase to complete the examination.



METEORITE FRAGMENT

Photo by O. V. Critchfield

The fragment was 5/16 th of an inch long. Dark gray in color, scoriatic in structure and with amydales of a friable white material. All in all, your specium resembled closely what is known in terrestrial petrography as "amydoloidal melaphyre." This term has now become antiquated since it embodies rocks of rather wide variation in composition.

On a detailed examination this specimen, however, differs, considerably from all froms of terrestrial petrography.

When examined under a binocular microscope at 40 X magnification, the walls of cavities were found to be lined fith triangular faces of magnetite, this fact according for rather strong magnetism of the specimen. Such cavities were filled with afriable white mass which obviously consisted of several minerals: two or more white ones, some limonite (yellow power) and rater well formed crystals of forsterite (Olivine). A drop of concentrated hydrochloric acid placed onto this fragment on cold has completely dissolved the white minerals and decomposed the olivine. This dissolution was accompanied with a vigorous efferecence indicating presence of carbonic acid radicals. Calcium and sodium were identified chemically in that drop of solution but by the time the drop has been consumed.

After the above mentioned acid treatment, the specimen was washed and a thin section prepared from it: a slice of the rock only 0.0012 of an inch thick and sealed between glass plates.

Since in preparation of this this section the gas bubbles of the rock were ground to a mere outline, magnetite lining such cavities has become all but ground off. The mass of the rock then showed to consist of: Urbanite, which is a manganese rick aegirine, Clinoenstatite, Forsterite (Olivine), Plagioclase—a few thin laths and one fairly large rhomb with isotropic (dark) core. Unidentified fine grained material-NOT glass.

I may add that both urbanite and clinoenstatite are monoclinin pyroxenes. The rhomb of plagioclase was possibly oligoclase formed at the expense of whatever existed at the core of that grain.

The above mentioned composition does not fit any form in classification of terrestrial rocks. We cannot call it "amygdaloidal olivine basalt" since the specimen contains very little plagioclase and no feldspathoids. Therefore, I will use the older and now antiquated name of "amygdaloidal melaphyre" to approximately define this rock."

"I have entertained several intriguing speculations in regard to precedence of that specimen.

I think that we can rule out the possibility that you picked up some fragments of terrestrial rocks that became scattered by the impact of that meteorite. To the best of my knowledge melaphyres do not out crop in vicinity of Oklahoma City. Also, the fragments were much too fresh to have laid for years on the surface of the Earth.

The fragments like the one I have could not have chipped off or spalled off the outer surface of a meteorite since the minerals of the fragments were not altered by heat of friction between the air and the rushing meteorite. The filling of cavities would have been destroyed—calcite decomposed and crystalline olivine fused to beads.

The possibility that would probably fit best is that the meteorite was orginally quite bit larger and that its outer portions spalled off. This fragment thus came from the interior of the meteorite where the meteorite was cracking due to sudden expansion of heated crust. Fragments corresponding to the heated discoloration and by rounding.

To my knowledge it is the second occurrence of amygdaloidal melaphyre among meteorites but then our knowledge of meteorites is rather scant-only about 1600 meteorites have been catalogued so far."

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